

1. A process for reducing NO_x emissions in a gaseous combustion effluent stream containing (NO and/or NO₂) comprising:

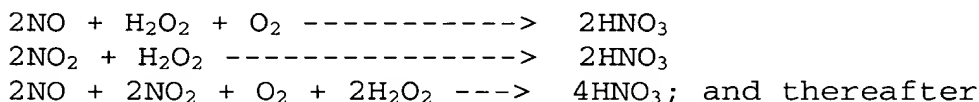
$$\begin{array}{lcl} 2\text{NO} + \text{H}_2\text{O}_2 + \text{O}_2 & \text{-----}> & 2\text{HNO}_3 \\ 2\text{NO}_2 + \text{H}_2\text{O}_2 & \text{-----}> & 2\text{HNO}_3 \\ 2\text{NO} + 2\text{NO}_2 + \text{O}_2 + 2\text{H}_2\text{O}_2 & \text{---}> & 4\text{HNO}_3. \end{array}$$
$$\begin{array}{rcl} 2\text{HNO}_3 + 2\text{KOH} & \text{-----}> & 2\text{KNO}_3 + 2\text{H}_2\text{O} \\ 4\text{HNO}_3 + 4\text{KOH} & \text{-----}> & 4\text{KNO}_3 + 4\text{H}_2\text{O}. \end{array}$$

4. The process of claim 2 wherein the potassium hydroxide is added in particulate form.

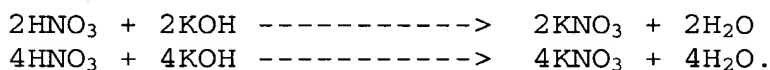
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6. A process for reducing NO_x emissions in a gaseous combustion effluent stream containing NO and/or NO₂ comprising the steps of:

a) adding hydrogen peroxide in aerosol form to the effluent stream in sufficient amounts to generate nitric acid by first stage reactions as follows:



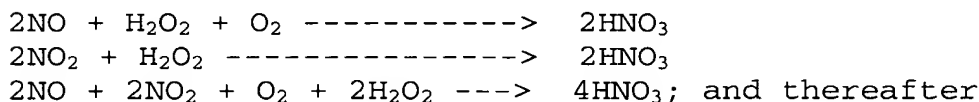
b) adding sufficient potassium hydroxide in particulate form to the stream to generate potassium nitrate in second stage reactions as follows:



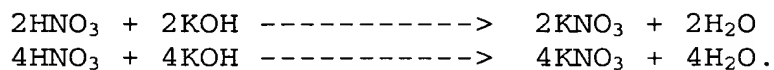
7. The process of claim 6 wherein NO_x emissions are reduced to a level below 40 ppm.

8. A process for reducing NO_x emissions in a gaseous combustion effluent stream from a land-based gas turbine containing NO and/or NO₂ comprising the steps of:

a) adding hydrogen peroxide to the effluent stream in sufficient amounts to generate nitric acid by first stage reactions as follows:



b) adding sufficient potassium hydroxide to the stream to generate potassium nitrate in second stage reactions as follows:



9. The process of claim 8 wherein the hydrogen peroxide is added in aerosol form.

10. The process of claim 8 wherein the potassium hydroxide is added in particulate form.

11. The process of claim 8 wherein NO_x emissions are reduced to a level below 40 ppm.

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